

ABSTRACT OF THE INVENTION

The present invention provides novel excipient formulations for delivering nucleic acids, particularly naked DNA, across cell membranes *in vivo*. The present invention also provides penetration enhancers which can be used to enhance delivery
5 and uptake by cells of a wide variety of nucleic acids particularly therapeutic agents or DNA molecule containing a gene encoding a protein which can benefit normal animals, especially in the application of gene therapy and augmenting viability or survival rate of newborn farm animals.